

Attorney Docket No. P13850-US2

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A device for communicating in a communications system, comprising:

a receiver configurable in a plurality of states, wherein in each state the physical layer headers associated with received frames of information are usable to determine the format in which the received frames of information are to be decoded and are interpreted differently relative to the interpretation of the physical layer headers in another state, wherein the plurality of states includes:

a speech state in which the physical layer headers indicate to the receiver to utilize speech decoding or fast associated control channel (FACCH) decoding for the information in the received frames;

a comfort noise state in which the receiver generates comfort noise, and best-effort data is interleaved with the physical layer headers, wherein the physical layer headers indicate that speech, data, or packet associated control channel (PACCH) information is included in the received frames; and

a speech possible state in which the receiver generates comfort noise, the physical layer headers indicate that speech or FACCH information is included in the received frames, and the receiver attempts to decode either speech or FACCH information, as indicated by the physical layer headers.

2. (Canceled)

3. (Currently Amended) The device of claim 1, wherein:

the receiver is configurable in a first the speech state when received frames of information ~~includes~~ include at least one of speech and FACCH information, in a second the comfort noise state during a speech silence ~~periods~~ period, and a third in the

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speech possible state when the received frames of information transition from the speech silence period to a talk spurt period.

4-5. (Canceled)

6. (Currently Amended) The device of claim [[4]] 1, wherein:

received frames of ~~higher-priority~~ speech information are diagonal interleaved;

received frames of ~~lower-priority information~~ best-effort data are block interleaved; and

physical layer headers of a first set of successively received frames of ~~higher-priority~~ speech information indicate that the first set of received frames contain ~~higher-priority~~ speech information when the physical headers of the first set of received frames are decoded as block interleaved frames.

7. (Canceled)

8. (Currently Amended) The device of claim 3, wherein:

the receiver enters the ~~third~~ speech possible state from the comfort noise state when the physical layer header associated with the received frames of information indicate that the associated received frames of information include speech information.

9. (Currently Amended) The device of claim 3, wherein:

the receiver enters the ~~third~~ speech possible state from the comfort noise state when ~~AMR~~ adaptive multi-rate (AMR) identification markers associated with the received frames of information indicate commencement of receiving speech information.

10. (Currently Amended) The device of claim 3, wherein:

the receiver enters the ~~first~~ speech state from the ~~third~~ speech possible state when a physical layer header associated with a received frame of information indicates that the associated received frame of information includes speech and the associated received frame of information is successfully decoded as speech information.

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11. (Currently Amended) The device of claim 3, wherein:

the receiver enters the ~~second~~ comfort noise state from the ~~third~~ speech possible state when a physical layer header associated with a received frame of information indicates that the associated received frame of information includes speech and the associated received frame of information is unsuccessfully decoded as speech information.

12. (Currently Amended) The device of claim 3, wherein:

the receiver enters the ~~second~~ comfort noise state from the ~~third~~ speech possible state when the receiver receives and decodes one or more received first frames having FACCH information and one or more received second frames immediately following the one or more received first frames do not include FACCH information and speech information.

13. (Currently Amended) The device of claim 1, wherein:

the receiver is configurable in a first speech state when received frames of information includes at least one of speech and FACCH information and in a ~~second~~ comfort noise state during speech silence periods; and

the receiver transitions between the first speech state and the ~~second~~ comfort noise state even in an absence of identification markers indicating the type of information in the received frames of information.

14. (Currently Amended) The device of claim 13, wherein:

the receiver is configurable in a ~~third~~ the speech possible state when the received frames of information transition from a speech silence period to a talk spurt period; and

the receiver transitions between the first speech state, the ~~second~~ comfort noise state and the ~~third~~ speech possible state even in an absence of identification markers indicating the type of information in the received frames of information.

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15. (Original) The device of claim 1, wherein the receiver comprises:
an input circuit for receiving the received frames of information;
a decoding circuit for decoding the received frames of information into any of a plurality of signal formats; and
a control circuit for controlling the decoding circuit based upon the values of the physical layer headers associated with the received frames of information.

16. (Currently Amended) The device of claim 1, wherein:
the receiver is configurable in a first the speech state when received frames of information include speech related information and in a ~~second~~ the comfort noise state during speech silence periods; and
the receiver transitions between the first speech state and the ~~second~~ comfort noise state based upon AMR adaptive multi-rate (AMR) identification markers associated with the received frames of information.

17. (Currently Amended) A communications device for participating in a communication of information, comprising:
a receiver, comprising:
an input circuit for receiving transmitted frames of information;
a decoding circuit for decoding the received frames of information into any of a plurality of signal formats; and
a control circuit configurable into a plurality of states based in part upon AMR adaptive multi-rate (AMR) identification markers of the received frames of information, the decoding circuit decoding the received frames of information based upon the state of the control circuit;

wherein the plurality of states includes:

a speech state in which physical layer headers of the received frames of information indicate to the receiver to utilize speech decoding or fast associated control channel (FACCH) decoding for the information in the received frames;

a comfort noise state in which the receiver generates comfort noise, and best-effort data is interleaved with the physical layer headers, wherein the physical layer

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headers indicate that speech, data, or packet associated control channel (PACCH) information is included in the received frames; and

a speech possible state in which the receiver generates comfort noise, the physical layer headers indicate that speech or FACCH information is included in the received frames, and the receiver attempts to decode either speech or FACCH information, as indicated by the physical layer headers.

18. (Canceled)

19. (Original) The communications device of claim 17, wherein:
the control circuit transitions between states even if a transmitted AMR identification marker is not received by the receiver.

20-26. (Canceled)

27. (Currently Amended) The communications device of claim 17, wherein:
the receiver is configurable in ~~a first~~ the speech state when received frames of information include at least one of speech and FACCH information and in ~~a second~~ the comfort noise state during speech silence periods;

received frames of information are decoded as diagonal interleaved signals when in the ~~first~~ speech state and as block interleaved signals when in the ~~second~~ comfort noise state; and

physical layer headers associated with the received frames of information indicating speech are the same when decoded as diagonal interleaved signals and as block interleaved signals.

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28. (Currently Amended) A device for communicating multiplexed signals having frames of higher priority information and frames of lower priority information, comprising:

a receiver configurable into a first state for decoding received frames of higher priority information, and a second state for decoding the received frames of lower priority information, and a third state when an indication is received that the received frames may change from frames of lower priority information to frames of higher priority information.

wherein state transitions of the receiver ~~being~~ are triggered by AMR adaptive multi-rate (AMR) identification markers associated with the received frames of information.

29. (Currently Amended) The communications device of claim 28, wherein:

the received frames of information may be decoded by the receiver in the first state as having any signal format from a first set of signal formats; and

the received frames of information may be decoded by the receiver in the second state as having any signal format from a second set of signal formats, the second set of signal formats being different from the first set of signal formats.

30. (Currently Amended) The communications device of claim 28, wherein:

the receiver transitions between the first and second states even in the event AMR identification markers indicating a transition in frame information ~~[[is]]~~ are missed, based upon the physical layer headers associated with the received frames of information.

31. (Canceled)